

**Notice of Allowability**

Application No.

10/679,015

Examiner

Shahid Al Alam

Applicant(s)

SINGHAL ET AL.

Art Unit

2162

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--*

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to amendment filed on June 14, 2007 and telephone authorization on August 3, 2007.

2.  The allowed claim(s) is/are 1-3, 6-13, 15-20, 51-53, 56-63, 65-70 and 86.

3.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)  All    b)  Some\*    c)  None    of the:

1.  Certified copies of the priority documents have been received.

2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.

(a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached  
    1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.

(b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of  
    Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1.  Notice of References Cited (PTO-892)

5.  Notice of Informal Patent Application

2.  Notice of Draftsperson's Patent Drawing Review (PTO-948)

6.  Interview Summary (PTO-413),  
    Paper No./Mail Date \_\_\_\_\_.

3.  Information Disclosure Statements (PTO/SB/08),  
    Paper No./Mail Date \_\_\_\_\_.

7.  Examiner's Amendment/Comment

4.  Examiner's Comment Regarding Requirement for Deposit  
    of Biological Material

8.  Examiner's Statement of Reasons for Allowance

9.  Other \_\_\_\_\_.

SHAHID ALAM  
PRIMARY EXAMINER

**DETAILED ACTION**

**EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Greg T. Sueoka, Reg. No. 33,800 on August 3, 2007.

The application has been amended as follows:

**In the claim:**

Please cancel claims 4, 5, 14, 54, 55 and 64.

Please amend first line of claims 11, 15, 17, 61, 65, and 67 as follow:

11. The method of claim 5 1, further comprising:
15. The method of claim 5 1, further comprising:
17. The method of claim 5 1, further comprising:
61. The apparatus of claim 55 51, further comprising:
65. The apparatus of claim 55 51, further comprising:
67. The apparatus of claim 55 51, further comprising:

Please replace claims 1, 51 and 86 with these clean versions of claims 1, 51 and 86 as follow:

1. A method for performing a transaction on a redundant database including a first database and a second database, wherein the method is performed by an application server, the method comprising:

sending a set of database modifications corresponding to the transaction to the first database;

placing a message in a message queue before sending a commit command corresponding to said set of database modifications to either the first database or the second database, said message comprising a representation of objects inserted, updated, or deleted in the transaction;

sending a first commit command to the first database;

sending said set of database modifications and a second commit command to said second database; and

sending a cache synchronization message to other application servers sharing a same cluster as said application server, wherein said sending said set of database modifications and said commit command to said second database and said sending said cache synchronization message are performed asynchronously on separate threads.

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51. An apparatus comprising a memory and a processor for performing a transaction on a redundant database including a first database and a second database, wherein the apparatus is located on an application server, the apparatus further comprising:

means for sending a set of database modifications corresponding to the transaction to the first database;

means for placing a message in a message queue before sending a commit command corresponding to said set of database modifications to either the first database or the second database, said message comprising a representation of objects inserted, updated, or deleted in the transaction;

means for sending a first commit command to the first database;

means for sending said set of database modifications and a second commit command to the second database; and

means for sending a cache synchronization message to other application servers sharing a same cluster as said application server, wherein said sending said set of database modifications and said commit command to said second database and said sending said cache synchronization message are performed asynchronously on separate threads.

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86. A program storage device readable by a machine, the program storage device containing a program of instructions executable by the machine to perform a method for performing a transaction on a redundant database including a first database and a second database, wherein the method is performed by an application server, the method comprising:

sending a set of database modifications corresponding to the transaction to a the first database;

placing a message in a message queue before sending a commit command corresponding to said set of database modifications to either the first database or the second database, said message comprising a representation of objects inserted, updated, or deleted in the transaction;

sending a first commit command to the first database;

sending said set of database modifications and a second commit command to the second database; and

sending a cache synchronization message to other application servers sharing a same cluster as said application server, wherein said sending said set of database modifications and said commit command to said second database and said sending said cache synchronization message are performed asynchronously on separate threads.

***Allowable Subject Matter***

Applicant's arguments have been fully considered and are persuasive.

The following is an examiner's statement of reasons for allowance:

In view of Applicant's amendment and Examiner's amendment, claims 1 – 3, 6 – 13, 15 – 20, 51 – 53, 56 – 63, 65 – 70 and 86 (re-numbered as 1 – 35) are allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shahid Al Alam whose telephone number is (571) 272-4030. The examiner can normally be reached on Monday-Thursday 8:00 A.M.- 4:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Shahid Al Alam  
Primary Examiner  
Art Unit 2162

August 4, 2007